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Abstract

Title: Visualization Software in Research Environments

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Visualization software is becoming an everyday tool in NDE. However, it has never been so difficult to find a package that fulfills the needs of all the staff of a research laboratory. Issues such as price, availability for a given platform and learning curves make the choice even harder. This paper describes our experience at Lawrence Livermore National Laboratory with various visualization packages. We will show how the problems encountered led us to use popular scripting languages such as Tcl or Perl. By coupling these languages with standard toolkits as Xlib and GL, powerful, flexible, user-friendly and machine-independent tools can be designed rapidly. We will describe X-ray CT industrial and biomedical applications that made use of this approach, and show how their requirements were taken into account. Issues such as merging the dataflow- and command-line-oriented approaches are also discussed.

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